

Customer No. : 31561
Application No.: 10/707,677
Docket No. : 12089-US-PA

AMENDMENTS

FOR THE CLAIMS

Claims 1-6. Cancelled.

Claim 7. (Currently amended) A multi-level memory cell, comprising:

a substrate;

a gate disposed over~~on~~ the substrate;

a source region and a drain region configured in the substrate on each side of the gate;

a tunneling dielectric layer disposed between the gate and the substrate;

a charge-trapping layer disposed between the tunneling dielectric layer and the gate; and

a top dielectric layer disposed between the charge-trapping layer and the gate, wherein the top dielectric layer has at least two portions from the direction of the source region to the drain region, and each portion has~~the~~ portions have different thicknesses, and wherein the tunneling dielectric layer has substantially a same thickness from the source region to the drain region.

Claim 8. (Currently amended) The multi-level memory cell of claim 7, wherein a material constituting the charge-trapping layer comprises silicon nitride.

Claim 9. (original) The multi-level memory cell of claim 7, wherein the cell

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further comprises a pair of spacers disposed on each sidewall of the gate.

Claim 10. (Currently amended) The multi-level memory cell of claim 97, wherein the cell further comprises lightly doped regions configured in the substrate underneath the spacers.

Claim 11. (Currently amended) The multi-level memory cell of claim 97, wherein a material constituting the spacers comprises silicon oxide.

Claim 12. (original) The multi-level memory cell of claim 7, wherein the tunneling dielectric layer has a thickness between about 20Å to 40Å.

Claim 13. (original) The multi-level memory cell of claim 7, wherein the charge-trapping layer has a thickness between about 40Å to 60Å.

Claim 14. (Currently amended) The multi-level memory cell of claim 7, wherein a material constituting the tunneling dielectric layer comprises silicon oxide.

Claim 15. (Currently amended) The multi-level memory cell of claim 7, wherein a material constituting the top dielectric layer comprises silicon oxide.